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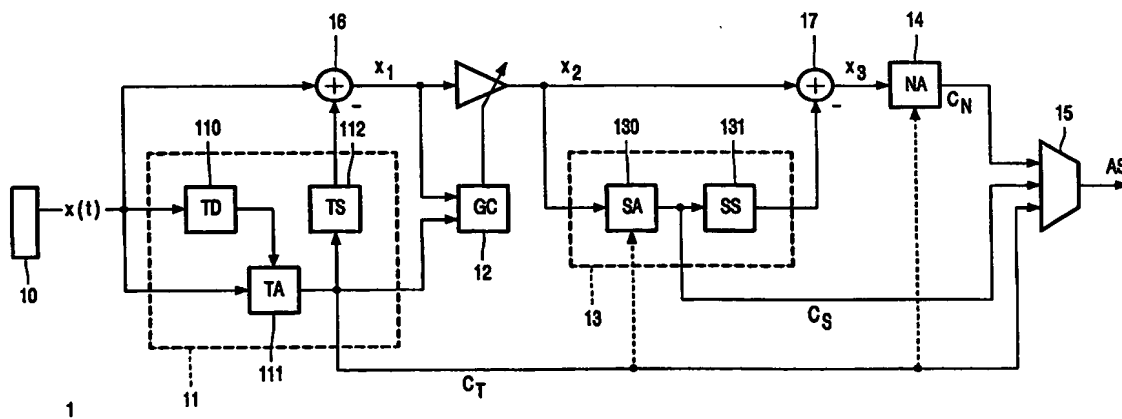
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#### Declaration under Rule 4.17:

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[Continued on next page]

(54) Title: **SINUSOIDAL AUDIO CODING WITH PHASE UPDATES**



(57) Abstract: Coding of an audio signal ( $x$ ) represented by a respective set of sampled signal values for each of a plurality of sequential segments is disclosed. The sampled signal values are analyzed (130) to generate one or more sinusoidal components ( $f_k, f_{k-1}$ ) for each of the plurality of sequential segments. Sinusoidal codes (CS) comprising tracks of linked sinusoidal components ( $f_k, f_{k-1}$ ) are generated (13) and phase update information ( $\Phi_k, \Delta_k$ ) indicative of the phase value of selected sinusoidal components in a track is determined. An encoded audio stream (AS) including said sinusoidal codes (CS) and said phase update information ( $\Phi_k, \Delta_k$ ) is then generated (15).

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International Application No  
PC 03/04232

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G10L19/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, COMPENDEX, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/007268 A1 (DEN BRINKER ALBERTUS CORNELIS ET AL) 17 January 2002 (2002-01-17) page 1, column 2, paragraph 5	1-11, 14-18
A	LEVINE S N ET AL: "A SWITCHED PARAMETRIC & TRANSFORM AUDIO CODER" 1999 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING. PHOENIX, AZ, MARCH 15 - 19, 1999, IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP), NEW YORK, NY: IEEE, US, vol. 2, 15 March 1999 (1999-03-15), pages 985-988, XP000900288 ISBN: 0-7803-5042-1 the whole document	8-10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*&\* document member of the same patent family

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 449 592 B1 (DAS AMITAVA) 10 September 2002 (2002-09-10) column 4, line 29 - line 38 -----	6
A	TAORI R ET AL: "Closed-loop tracking of sinusoids for speech and audio coding" IEEE WORKSHOP ON SPEECH CODING PROCEEDINGS. MODEL, CODERS AND ERROR CRITERIA, XX, XX, 20 June 1999 (1999-06-20), pages 1-3, XP002149588 -----	

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